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Profile

a guide to military careers

March 1986

The April issue of PROFILE features Air Force Computer Systems Specialists. Additional articles explore Marine Corps hydraulics mechanics, Coast Guard law enforcement training, Navy aviation anti-submarine warfare operators, Army heavy-wheeled vehicle operators, and military career counselors.

Profile

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About the covers

Front: The Transportation Corps' mission encompasses more than just moving the Army's supplies and equipment. It also plays an important role in ensuring combat troops are transported to, and from, mission locations. Even with this myriad of responsibilities, the Transportation Corps stands ready to meet the challenge. (U.S. Army photo)

Back: Seaman Laird Fentress stands guard as a Coast Guard boarding party inspects a civilian vessel. The guard watches for suspicious activity among the boarded vessel's crew while the boarding officer completes his inspection. (Photo by Karen Murdock)

MAR 14 1986

When the Army needs to move...

The transportation corps gets the job done!

story and photos by Karen Murdock

The Army has thousands of people, hundreds of thousands of pieces of equipment and millions of supplies—most of which must be moved from time to time. When it's time to move, the Army turns to its Transportation Corps.

When transporting cargo or passengers, the Transportation Corps uses just about anything that runs on the road, flies through the air or sails across the water.

To keep all these modes of transport moving on time and efficiently, the Transportation Corps relies on the people who operate and maintain the land and water cargo vehicles and aircraft.

The Army employs 46, 304 motor transport operators (drivers) in the active Army, Army Reserves and National Guard to conduct land operations. Sgt. 1st Class Ronald Marrs, at the U.S. Army Transportation School at Fort Eustis, Va., said, "A motor transport operator can drive anything from a jeep to a M915 14-ton tractor trailer truck. The driver's job depends on the unit's mission. They might make mail runs or move troops and supplies to the field," he explained.

Two Army truck drivers change the tire on a M915 tractor trailer.

Army truck drivers learn their job at the seven-week motor transport operator school at Fort Dix, N.J. or at Fort Leonard Wood, Mo. "The student is taught to safely operate everything in the Army's inventory. The progressive course begins with the smaller vehicles and works the student driver up to the M915. Students learn military driving, including convoy formations and off road operations," Marrs said.

"The schools produce apprentice drivers. It's then up to the assigned unit to ensure that drivers receive the necessary training to perform the unit's mission.

"If a driver is assigned to a land haul company, for example, the 37th Transportation Group in West Germany, the soldier attends a two-week driver's academy to become familiar with European driving laws and the characteristics of cargo handling," Marrs explained. "After the academy training, the driver returns to the unit and rides/drives 3,000 miles with an instructor. Once a driver reaches the 3,000 mile mark, he or she is tested by a licensing examiner and receives a military license to operate a 14-ton tractor trailer.

"Passing the test is easier than it used to be now that many of the Army's trucks have automatic transmissions," he added.

"Being a truck driver can be a tough job," Marrs continued. "Many start a run early in the morning and finish late in the afternoon. Even if they've been on the road all day, their job isn't finished once they return to the motor pool. Before they turn their truck in, they perform any required maintenance. They check the tires and change the oil, or perform whatever minor maintenance is necessary. Army vehicles accrue a tremendous amount of mileage. Although safety is the name of the game, keeping the trucks operating and getting the job done is what counts."

Getting the job done is also what counts on the aviation side of the Transportation Corps, whether the soldier is a pilot, helicopter mechanic or air traffic control tower operator.

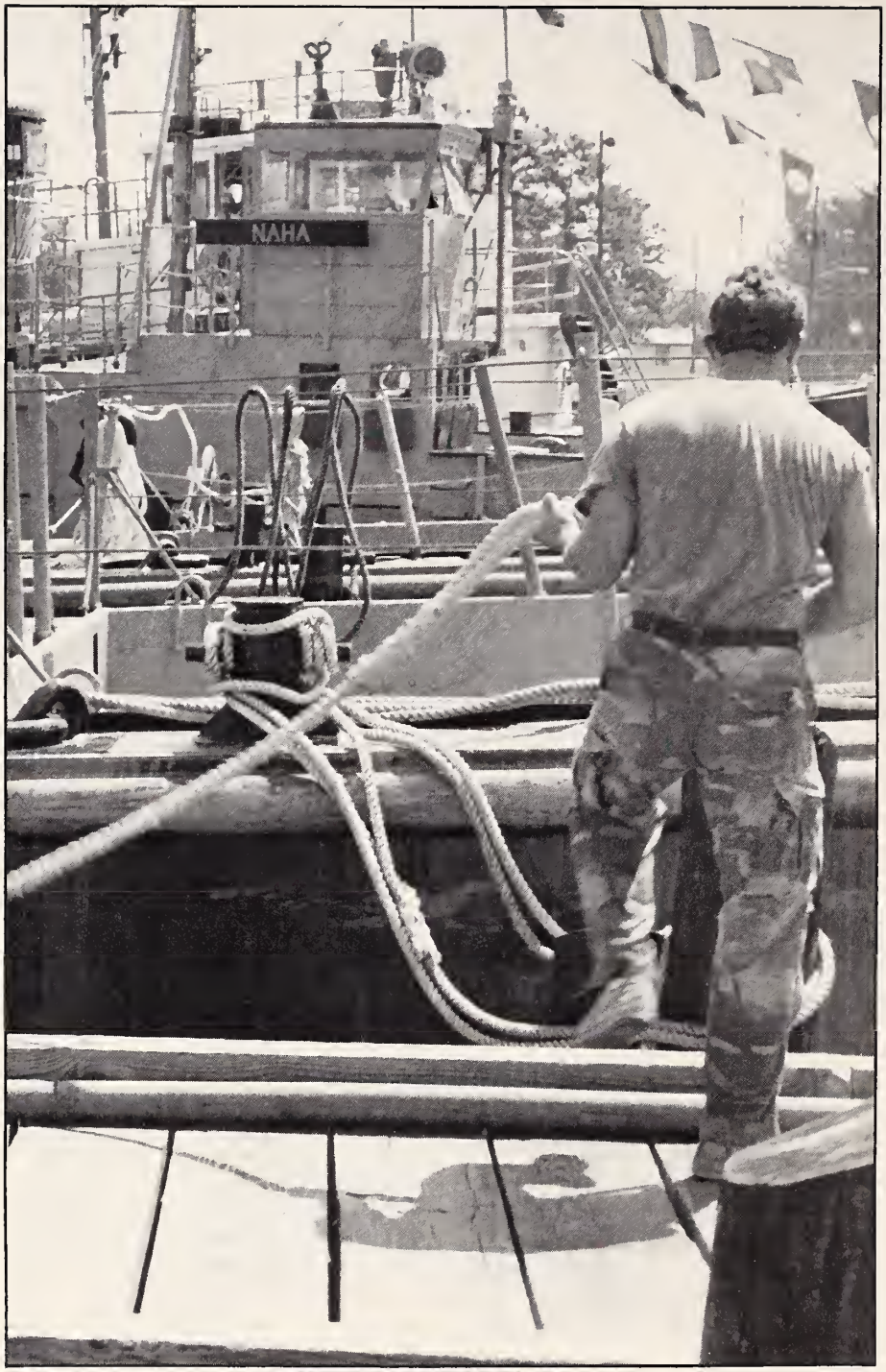
Helicopter mechanics train at Fort Rucker, Ala., and at Fort Eustis, Va. "The course length depends on the aircraft, however the average class lasts about 14 weeks," explained Master Sgt. James F. Christopher, project noncommissioned officer at the Program Management Office, U.S. Army Aviation Logistics School, Fort Eustis, Va.

"Maintenance training never stops. The basic courses teach all phases of maintenance from reading a manual to pulling a transmission. However, students aren't expected to learn everything about the aircraft at school. The instructors provide students with a thorough familiarization so they can use the manuals to determine how to correct a problem.

"Once a soldier completes the class, he transfers to a unit where he works in a maintenance shop or as a helicopter crew chief. Crew chiefs perform the daily maintenance on their assigned helicopter. A helicopter requiring major repairs is turned over to the maintenance shop people," Christopher said.

An Army mechanic repairs the transmission of a CH-47 helicopter. (U.S. Army Photo)

"The best way to become a helicopter pilot," explained Chief Warrant Officer Dan Sullivan, training coordinator at the aviation school, "is to join the Army and apply for the aviation field. The enlisted soldier completes job training, for example as a mechanic, and



A soldier in the Army's Transportation Corps prepares to tie-off a vessel docking at Fort Eustis, Va.

applies for warrant officer flight school. This familiarizes them with the Army and gives them a working knowledge of the aircraft." People accepted into flight training attend an eight-month course at Fort Rucker, Ala.

"Aviation skills learned in the military are also applicable in the civilian market," Christopher said. "The military helicopter systems used by the Army are 'carbon copies' of the systems on helicopters flown by civilians."

In addition to hauling cargo and troops by air and land, the Transportation Corps also operates on the water. The 11th Transportation Battalion at Fort Story, Va., is the home of the Lighter Air Cushioned Vehicle (LACV).

The LACV, which looks like a boat but is equipped with aircraft engines, floats on a cushion of air and can move across both water and land. The craft's primary purpose is providing high speed transportation for equipment from cargo vessels at anchor to a shore facility.

Another portion of the Army's "navy," is the 10th Transportation Battalion at Fort Eustis, Va., which moves equipment and supplies for the Army, Navy and Marine Corps, using ships, ocean going tugs and smaller utility craft.

The 558th Transportation Company at Fort Eustis, Va., repairs and supports the vessels that move the cargo. "We're the only unit of it's kind in the Army," explained Capt. Robert C. Todd, commander of the 558th. "This unit encompasses a great many skills from boat operators, mechanics, divers and marine engineers to electricians, welders, motor pool personnel and computer repairers.

"The unit's primary function is rebuilding diesel engines. Using the floating machine shop (FMS), mechanics provide direct support to vessels off shore. The FMS, a boat outfitted as a machine shop," Todd said, "can perform any job a land-based shop can. The only difference is, the FMS sails to the ships needing repairs instead of the ships sailing to it."

Railroads currently don't play an important role in the Army transportation field; however, there are jobs available in the Army Reserve as locomotive or airbrake repairer, locomotive operator and train crewmember.

Whatever the means of transportation, whether by land, air or sea, the Transportation Corps moves people, equipment and supplies all over the world and provides a vital link in keeping the Army mobile.

newsbriefs

Marine Corps checks overseas tour lengths

Marine Corps manpower officials are currently conducting an overseas tour length review. The review came about after the House Armed Services Committee directed all accompanied overseas tours to be 36 months and all unaccompanied tours to be 24 months. The 36/24 month policy would stand in all cases except where strong evidence dictates the necessity of shorter tour lengths.

Concern over the cost of permanent change-of-station moves promoted the committee to change the policy. In order to conduct a comprehensive overseas tour length survey for the Marine Corps that can identify possible exceptions to the new policy, officials are reviewing each overseas duty location where accompanied tours are less than 36 months and unaccompanied tours are less than 24 months. In all, 68 surveys are being conducted.

"Our primary concern has to be with operational readiness," said Brig. Gen. Gail M. Reals, director of Manpower Plans and Policy Division, Headquarters Marine Corps. "But quality of life for the Marine and the Marine family also has to be taken into account. We believe this survey will provide an honest appraisal of how any proposed tour length change might affect both."

New government checks

Many Americans began receiving U.S. government checks with a new look Dec. 3, 1985. Instead of the green or other color punched-card checks used for the past 40 years, the government is now issuing paper checks.

Since 1977, the government has been exploring alternatives to modernize the production of government checks. The punched-card technology used by the government for the past 40 years has been effective in distributing government benefits, salaries, tax refunds and other types of payments; however, the punched-card technology is now obsolete.

As part of the U.S. Treasury's modernization effort, and a need to conform to generally accepted commercial practices, the checks will now be printed on paper which is about one-third the cost of card stock. And because the paper is lightweight, it costs 30 percent less for storage. Once the conversion is complete, the new modernized government check will save taxpayers $6 million per year.

The new check also provides more than a dozen security features which make the check more difficult to alter or counterfeit. The design features a full-length engraving of the Statue of Liberty, as well as a faint close-up of her face and torch, printed over a multicolored background ranging from light blue to pale peach. A pattern of the letters "USA" is printed in pale blue on the reverse side.

One-time capital investment startup costs of acquiring new paper check equipment to replace obsolete punched-card equipment is approximately $5 million. The conversion is expected to take two years to complete.

20/20 plus VISION

Story and photos by James McKane III

On a fog-shrouded night, a Navy warship edges its way toward a hostile beach. Weather conditions and equipment malfunctions have decreased the navigation radar's capacity, requiring binocular-wielding lookouts to keep a constant vigil. Suddenly a lookout calls out "unidentified small boat ahead!" The ship's helmsman executes an emergency turn, avoiding a Navy Underwater Demolition team returning from shore.

The team is spared a watery death thanks to the lookout's alertness. Even with modern navigation technology, today's Navy has no substitute for lookouts with binoculars and other optical equipment. The Navy's 300 plus opticalmen (OMs) maintain this equipment.

Attention to detail is a matter of habit for opticalmen. Petty Officer 3rd Class Richard Tostvin checks a lens for blemishes and damage.

Opticalman Petty Officer 1st Class Bruce A. Wagner, at Shore Intermediate Maintenance Activity (SIMA), Norfolk, Va., supervises the repair of optical equipment for Norfolk-based ships and shore commands.

"Contrary to what our name implies, opticalmen don't grind lenses or make eye glasses," Wagner explained. "However, OMs do recement doublet or triplet lenses. These are pieces of crystal glass glued together to channel, magnify or focus an image.

"OMs also completely overhaul small optical navigation equipment and instruments including telescopes, bore sights, stadimeters, ship's binoculars (big eyes), bearing circles, azimuth circles, parallel motion protractors, gun sights, range finders and submarine periscopes," he added.

"Opticalmen perform mostly mechanical work," said Petty Officer 2nd Class Kylan K. McClelland, assistant optical shop supervisor at SIMA, Norfolk. "They use precise Geneva Conventions Gauges to measure lens curvature and alignment. Inside and outside micrometers, dial indicators and calipers are just some of an OM's tools. Opticalmen use collimators and optical telescopes daily to measure the alignment of cross hairs and moveable instrument lenses," she added.

"Electrical and electronics repair are fast becoming part of the optical field," Wagner said. "Ten years ago, OMs rarely touched electronics equipment. However, with the new periscopes, electronic sextants and theodolites (night vision equipment used to measure horizontal and vertical angles between a ship and fixed point or other ship) in use today at sea, general electronics plays a more important role in optical repair. Increasingly, opticalmen repair electronic circuit boards, replace microminiature parts and motors, and generally perform electronic, vice mechanical, repairs."

"Optics have entered the computer age. Instruments are being developed which use fiber optics and computer enhanced, imaging telescopes to provide gun sighting and targeting information," added McClelland.

Although on-the-job training (OJT) can provide a working knowledge of the optical repair field, the normal training cycle is enlistment, boot camp, Basic Electricity and Electronics (BE&E) and Optical School. "After boot camp I attended BE&E school and the six month Opticalman "A" School at Naval Training Center, Great Lakes, Ill.," Petty Officer 3rd Class Richard Tostvin, of SIMA optical shop, said.

"Because I had not taken advanced math and

Navy opticalmen require steady hands and sure eyes to properly align reticles (crosshairs) in optical gear.

science in high school, BE&E was difficult. Opticalman 'A' School was easy. In 'A' school, students spend the first few weeks studying light and optical theory, followed by four weeks of machine shop training. In the machine shop students learn to operate lathes, milling machines, drill presses and other machining equipment. 'A' school's final phase covers navigation equipment. Each week I learned how to repair a different instrument. I enjoyed this phase because I could see what I was studying. Studying electronics is all right, but you can't touch an electron or see it move through a wire. I could see a binocular reticle (cross hair)."

Petty Officer 3rd Class Ann Marie Vuiller, also at SIMA, Norfolk, says she enjoyed school for different reasons. "The school was difficult, but the instructors were superb. The course took the class through each procedure or section in easy to follow steps. 'A' School is self-paced; if a student has a problem, the instructor explains that section in detail. A student never begins a new section before understanding the previous one.

"I never thought I could work in a machine shop, but because my Navy training was thorough, I have no problem using any machining equipment. For instance, although it may sound difficult, machining a replacement objective lens mount is easy," she continued. "When a damaged mount is removed, the replacement isn't machined to hold a particular lens. I set the mount in a four jaw lathe chuck and dial in the lathe settings to cut the groove for a specific lens."

Throughout opticalman "A" school, instructors remind students of the necessity for precision, cleanliness and neatness.

"No matter how opticalmen enter the field, they should have a natural inclination toward the use of precision tools and equipment. Neatness and cleanliness traits are also important," Wagner said. "And, manual dexterity is a plus. Opticalmen should know high school geometry and algebra, as much of their work includes calculating light refraction angles and light bending. Another helpful ability is being able to perform detailed mechanical work. A good example of this is aligning or replacing the cross hairs on gun sights.

"However, the most important prerequisite is normal color preception and vision correctable to 20/20," he added.

"In optical instrument repair, OM's use color to check prisms and detect minute scratches on crystal lenses," Warner continued. "Bent light's rainbow effect highlights defects in a prism. When a lens is held before a light, scratches show up as colored lines. Without normal color perception, an OM would have difficulty performing many lens repair procedures.

"Precision is the ultimate requirement in the OM job field. An instrument's case and interior metal parts hold the lenses and prisms. The lens elements move precisely only if the metal parts fit properly. Once the mechanical parts operate smoothly the lenses can focus the image. Misaligned prisms or lenses cause image fuzziness or inaccurate range readings," Wagner said.

"As opticalmen disassemble an instrument, an OM neatness is paramount. If neatness isn't maintained, an OM could insert a prism or lens backwards. A stadimeter might still focus, but its range readings would be incorrect," he concluded.

"To keep dust and dirt from contaminating the lens and prism elements, an opticalman's work bench must be spotless. Dust or dirt on a prism causes color distortion. Since signal flags' colors have different meanings, color distortion could cause a warship to execute an incorrect maneuver," McClelland said.

"If an instrument isn't correct, it doesn't leave my bench. I don't request a quality assurance check until I'm satisfied it's perfect," said Petty Officer 3rd Class Kathy Ann White, of SIMA optical shop. "For me, it's a matter of pride in my workmanship. It means a lot to me whether an instrument works correctly or not."

tidbits & technology

Air Force pilot commitment

New Air Force pilots will have to stay on active duty an extra year starting in mid-1987.

The Air Force is changing its initial active-duty service commitment for pilots from six to seven years. The increased commitment will affect officers who enter undergraduate pilot training June 15, 1987 or later. The seven-year commitment will begin when training is completed.

Lt. Gen. Duane H. Cassidy, Air Force Manpower and Personnel deputy chief of staff, explained, "This increased commitment is a readiness initiative that will provide a more experienced and stable pilot force while reducing total personnel costs."

The change follows an 18-month study assessing what impact an increased service commitment might have on pilot recruiting and the pilot force beyond the turn of the century.

Some facts about smoking

Although some people, especially smokers, would rather not know the following, here's some trivia about smoking and smokers.

Americans spend $51 billion on cigarettes each year. Smokers lost 21 percent more days from work than nonsmokers and spend 15 percent more days disabled. Smokers have twice the accident rate of nonsmokers due to carelessness caused by attention loss, eye irritation, coughing and hand interference.

Every year, disease and lost production due to smoking cost the United States $65 billion.

Smoking increases maintenance and cleaning costs. A manager of a nonsmoking hotel found he saved $1,000 a year per room over the costs of cleaning up after smokers. He had 120 nonsmoking rooms, saving him $120,000 a year.

Every day, smoking-related diseases are the cause of nearly 900 deaths. Fires from cigarettes cause 2,300 deaths annually.

Coast Guard breathing aid

The Coast Guard recently became the only military service in the world to use the Underwater Escape Rebreather (UER).

The device is designed to aid crewmembers while escaping from a crash in the water. The UER is incorporated into a survival vest already outfitted with flares, strobe light, flotation collar and radio. The small cylinder of oxygen provides an estimated two to eight minutes of breathing thus helping the crewmembers overcome entanglement and the gasp reflex while exiting the aircraft. Oxygen is used instead of compressed air to allow longer periods of rebreathing.

The mandatory training is extensive, including a complete briefing on its operation, hazards and four checkrides in the safe confines of a pool under the watchful eye of qualified instructors. Due to the extensive training, only air crews are permitted to use the UER.

High school credentials required for Army promotion

Soldiers who want to be promoted to sergeant will need a high school diploma or General Education Diploma (GED) equivalency as of March 1, 1987.

Mid-career soldiers, those below the rank of sergeant who are on their second or subsequent enlistment, will also need the high school credential to reenlist.

The policy change was made because approximately 90 percent of the enlisted soliders now coming into the Army have high school diplomas, said Sgt. Maj. Dennis Smith of the Enlisted Programs Branch of the Deputy Chief of Staff for Personnel in the Pentagon. "The soldier charged with training and leading them should have that level of education."

Smith said that soldiers on the sergeant promotion list who do not meet this new requirement on March 1, 1987, will be removed from the list. He added that soldiers shouldn't wait until the last minute to get their diplomas. "Local education centers and the soldiers' first sergeants can provide all the details to meet the requirement."

"Welcome Aboard"

Wanted: People with variety of skills to fill demanding job. Must possess exceptional personal appearance and poise; excellent communicative skills, particularly verbal; and managerial skills. Ability to prepare meals for 30 to 300 people. Patience, diplomacy, and physical stamina to walk several miles in six hours mandatory.

"If I were soliciting applications for assistants, that's how my ad would read," said Staff Sgt. Kathy Foltz, an Air Force in-flight passenger service specialist (IPSS) in the 89th Military Airlift Wing (MAW), Andrews Air Force Base, Md.

"As an Air Force in-flight passenger service specialist, I perform the same duties on Military Airlift Command (MAC) flights as my civilian counterparts on commercial airlines. I conduct pre-flight emergency procedure drills, serve meals and beverages and generally ensure passenger safety and comfort. I also account for food, beverages, supplies consumed, and for aircraft and survival equipment on board.

"Aside from performing the basic IPSS tasks, working in the 89th MAW is unique because of the distinguished visitors (DVs) I serve," she continued. "This special duty assignment requires military and professional experience. Stewards here have either served four or more years as IPSSs at other bases, or have retrained from public relations oriented career fields, such as supply, medical, or administration."

"People can't just walk into the IPSS career field," said Staff Sgt. Tushar Gadre, a steward in the 89th MAW. "Interested senior airmen with at least four years remaining on their enlistment must submit applications containing performance reports and photographs to the Air Force Manpower and Personnel Center, Randolph Air Force Base, Texas. In addition, airmen applying must pass a flight physical and altitude chamber training. Once applicants are accepted, a special duty identifier code is placed on their records. They then receive on-the-job training on individual aircraft."

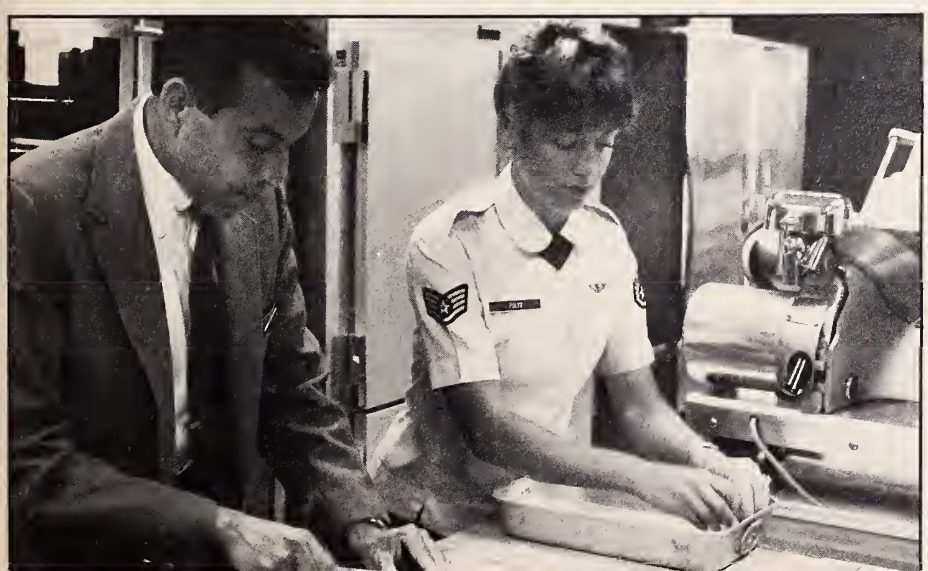
Management abilities and prior military experience are necessary when preparing for flights. "Each flight is planned in advance with the traveling organization's liaison," Gadre explained. "Of particular importance is the menu. Stewards cater to passengers' personal, religious, and dietary restrictions.

"On regular MAC flights, stewards heat and serve pre-cooked meals or box lunches. On DV flights, however, stewards cook the meals. In addition to learning by experience, stewards attend service-oriented and civilian culinary arts courses," he added.

Even with the advance scheduling normal to aircraft operations, stewards must be prepared for schedule alterations. "I've learned to survive last minute changes," Foltz said with a laugh, "like packing for a five-day trip that extends into a three-week European conference."

Seeing the world isn't a privilege reserved for 89th MAW stewards. MAC flights service most countries where U.S. service members are stationed. Exotic places such as Greece, Turkey, Japan, Europe, and Hawaii are on the list.

Because of the day-to-day contact with high-ranking U.S. government officials, military members, and foreign dignitaries, in-flight passenger service specialists must maintain three very important personality traits. "Stewards represent the Air Force," Gadre explained. "More importantly, however, they represent the U.S. government, particularly on overseas and distinguished visitor flights."



story and photo by Linda Mitchell

BOARDING PARTY

story and photos by Karen Murdock

"How many persons are on board, captain?"

"Five, including myself."

"Do you have any firearms on board?"

"Negative."

"I am boarding your vessel to ensure compliance with all applicable maritime laws and regulations."

"The boarding officer obtains as much information as possible about the ship before boarding," explained Petty Officer 1st Class Dave Jones, deputy chief of the Portsmouth Coast Guard station in Portsmouth, Va. The Coast Guard crew then maneuvers their 41-foot utility boat along side the craft and the boarding officer and his assistant board the vessel.

While the boarding party transfers from one boat to the other, the Coast Guard crewmembers remaining on the patrol boat watch for any suspicious activities or actions on the civilian boat. Once on board, the boarding officer gathers the vessel's crew on the bow where they remain throughout the inspection.

"Using a Coast Guard boarding inspection list, the boarding party checks the owner's identification and the vessel's safety equipment. They're especially concerned the craft is equipped with a horn, whistle, fire extinguisher and sufficient life jackets for each passenger," Jones said. "They also ensure the boat's bilges aren't filled with fuel oil. Basically, the boarding party checks the entire vessel."

According to Petty Officer 2nd Class Dan Burgess, a Coast Guard boarding officer, the boarding party is always cautious. "Boarding parties never know what they're going to find. If the boarding officer lifts a hatch and sees bales wrapped in burlap and plastic with 'Columbia' stenciled across the side, it's a good guess the crew's smuggling drugs. The boarding party tests the substance on the spot. If they find it to be an illegal substance, the boarding officer arrests the crew and seizes the boat," Burgess explained.

"Performing vessel safety checks is just one of a patrol boat crew's duties," Jones said. "At most Coast Guard stations at least one boat gets underway every day for one reason or another. It could be a pollution response call, a law enforcement mission, a burned-out bouy light, or simply debris blocking the channel.

"Although patrol boat crews perform a variety of duties, their primary mission is search and rescue," he continued. "My station handles about 500 cases a year. The majority are minor incidents which the crews handle on the scene, pleasure boats breaking down or running out of gas. However, if a crew arrives at the scene and a person is injured or the crew is in danger, the patrol boat tows the vessel to the nearest port.

"During the summer months, this has to be the best job in the Coast Guard," Jones said. "However, the winter months are a different story. The boat's deck ices over, the wind blows hard and cold, and the seas get choppy.

"It's great duty in the summer, but tough duty in the winter," he concluded.

Beans, Bandages & Snowshoes?

story and photos by Linda Mitchell

The young man strolled through the large computer store looking for a disc drive to operate with his home computer. He had seen the store's newspaper "overstock sale" advertisement, and thought that now was the right time to get what he needed.

A salesclerk showed the man a demonstration model. The clerk then checked the warehouse inventory listing and found that there were several in stock. He asked a warehouseman to set one disc drive aside for the customer to pick up.

Accurately accounting for stock levels is extremely important, whether it's to avoid overstock situations, or to keep from running out of an item. Store managers and buyers keep track of stock levels using the inventory listings. Warehousemen update these listings by physically counting each item as it comes in and leaves the warehouse.

The Marine Corps warehousing system works the same way.

"You name the product, and it's processed through the Marine Corps supply system," said Cpl. Brian Kuykendall, a supply warehouseman in the 3rd Supply Battalion, 3rd Force Service Support Group, Marine Corps Base, Camp Lejeune, N.C. "The supply system processes everything imaginable to establish and operate a base—from bolts, bandages, and beans, to paper products, vehicles, and zippers.

"Keeping track of millions of items in the system involves several steps," he continued.

"The process begins when a shipment arrives from the Marine Corps Logistics Base, Albany, Ga.

"The shipment first processes through the base Traffic Management Office (TMO). Using the first four numbers of the manufacturer-assigned national stock number, TMO personnel assign a location to the merchandise. Warehousemen use forklifts or mule trains (vehicles similar to those used to transport baggage to and from aircraft) to transport the goods to specific warehouses."

"The location number tells warehousemen where the item will be stored," said Sgt. Esekia Motu, another warehouseman in the battalion. "It could be in the general purpose warehouse; flammable or ammunition storage facilities; food cold storage areas; or special equipment facilities. The location number also indicates shelf, drawer or box location."

"Supply personnel inventory (count) each shipment, ensuring the number received and the amount shipped agree. They enter the correct amount on the computer item record. Warehousemen then fill back orders before storing the remaining items in the correct location," Motu said. The process is reversed when a customer brings in requests for supplies.

"This system of checks and balances is important for bulk issues," said Private 1st Class Willie Hentz, assigned to the cold weather gear storage facility at Camp Lejeune. "Supply warehousemen are responsible for skis, snowshoes, parkas, camouflage white suits, sleeping bags, snow tire chains, tents, overshoe boots, small space heaters, camp stoves, and hundreds of other items.

"Organizations send our unit a letter requesting the equipment required for an exercise," Hentz explained. "Unit supply warehousemen gather the requested equipment and have the organization's representative sign for it."

Individual equipment require-

A Marine supply warehouseman uses a fork lift to deliver and store supplies in a warehouse at Marine Corps Base, Camp Lejeune, N.C.

Sgt. Esekia Motu inventories a bin drawer, ensuring all items on the items record are accounted for.

ments are filled similarly, with individuals carrying letters from the requesting organization," said Cpl. Marvin Burchette, Hentz's co-worker. "The equipment is returned once the exercise is completed. Warehousemen count the items, check their condition, then return them to the proper locations."

Inventories play an important part in the warehousemen's daily jobs. "Supply personnel constantly conduct inventories, especially of high-cost items," Hentz said. "Computer records must agree with what is on the shelf, plus what is signed out to organizations.

"Supply people inventory every warehouse," he continued. "That means counting every item and matching the counts with the figures on the item record. If the figures match, great. If they don't, warehousemen check item record histories back to the last time the inventories agreed."

"Supply personnel also perform record recounts and location verifications," Kuykendall said. "For record recount inventories, they count items in a certain stock class. During location verifications, warehousemen verify an item is physically in the recorded location." Warehousemen also perform daily individual inventories when shelf and item record amounts don't match.

Working in a warehouse isn't merely a matter of being able to count to 10 or 100, however. Warehousemen study warehousing techniques in a three-week school at the Marine Corps Logistics Base, Albany, Ga. "During the first weeks, students learn the different warehouse designations; warehousing techniques; location and code number assignment procedures; and how the Marine Corps supply system operates," Kuykendall said. "Trainees drive forklifts and mule trains. They practice loading and unloading trucks and railroad cars. Plus, they learn how to maintain the machinery they operate.

"The final exam includes a written test on forklift and mule train maintenance, and a driving test. Warehousemen graduate with a license to operate forklifts with a load capacity of up to 6,000 pounds," he added.

Some Marines enter the supply career field through on-the-job training (OJT), rather than through the basic school. However, they all have the opportunity to attend advanced schools. "After OJT and six years of experience, I attended the advanced supply school at Camp Johnson, N.C.," Motu said. "This five-week course stresses warehouse management and leadership techniques."

The basic and advanced schools emphasize a characteristic both civilian and Marine Corps warehousemen must exhibit constantly. "Supply warehousemen must always be aware that their integrity is at stake, while accurately accounting for every item on the supply records," Kuykendall said.

Like the customer in the computer store, Marine Corps supply customers rely on warehousemen to locate whatever they need to complete their jobs. "It doesn't matter whether it's an aircraft maintenance person seeking engine parts, or someone shopping for office supplies," Kuykendall said. "Quick location and delivery of products is the supply warehouseman's job."

"ON THE AIR"

story by Rick Johnson

Sgt. Steve Grimes, a Marine Corps broadcaster stationed at AFCN, Roosevelt Roads, Puerto Rico, waits for a song to end before opening the microphone during a live radio broadcast. (U.S. Navy photo)

Studio lights blaze as cameras warm up.

A floor crew rushes to their appointed positions.

Someone yells for a camera check. "Focus on one, focus on two. Where's number three?"

"Mike check."

Announcers make last minute uniform checks....

"Ten minutes!"

They smooth and comb their hair...

"Five minutes!"

Cameramen adjust their cameras.

"Stand by!"

Papers shuffle...

"Ready to cue on One and... Cue."

"Good evening and welcome to NEWSWATCH. I'm..."

This scene of apparent frenzy is an American Armed Forces Radio and Television Service (AFRTS) studio operated by military broadcasters. Army, Navy, Air Force and Marine Corps broadcasters with an important mission—providing news, information, and entertainment to military personnel stationed overseas.

"Most AFRTS stations operate similar to many of the smaller radio and television stations stateside," said Navy Petty Officer 1st Class John Smith, the Production Manager at the Armed Forces Caribbean Network, Roosevelt Roads Naval Station, Puerto Rico. "They have separate departments for Radio, TV, News and Production. The only real difference between their operations is the way they receive the programs. Network

affiliates are satellite fed. AFRTS stations receive their's in the mail."

AFRTS outlets receive a 92-hour package of videotaped programming each week. Various industry sources donate many of the packages with the Department of the Defense picking up the tab on the rest. The packages include everything from soaps to sports to prime time programming. "Basically, military personnel stationed overseas see the same television programs as stateside families, just a few months later," Smith said.

"We also receive 85 hours of radio programming each week," he continued. "Fifty-five of the 85 hours are pre-recorded by top professional disc-jockeys like Wolfman Jack, Charlie Tuna and Dick Clark. The remaining 30 hours is a mixture of popular recordings which the stations retain in their music libraries."

In addition to the pre-recorded packages, AFRTS airs programs, public service announcements and news shows produced by local personnel. "Each AFRTS has production departments which tape raw footage with voice over for local news programs," Smith explained. "The production department has camera teams similar to the ones you see roaming around town. The news department assigns a story, and the team goes out and shoots it.

"When the team returns to the station, news room personnel edit the footage and combine the local news with stories compiled from various wire services to produce the evening newscast," he continued. "News room personnel also report the edited story on the air. They act as the station's anchormen."

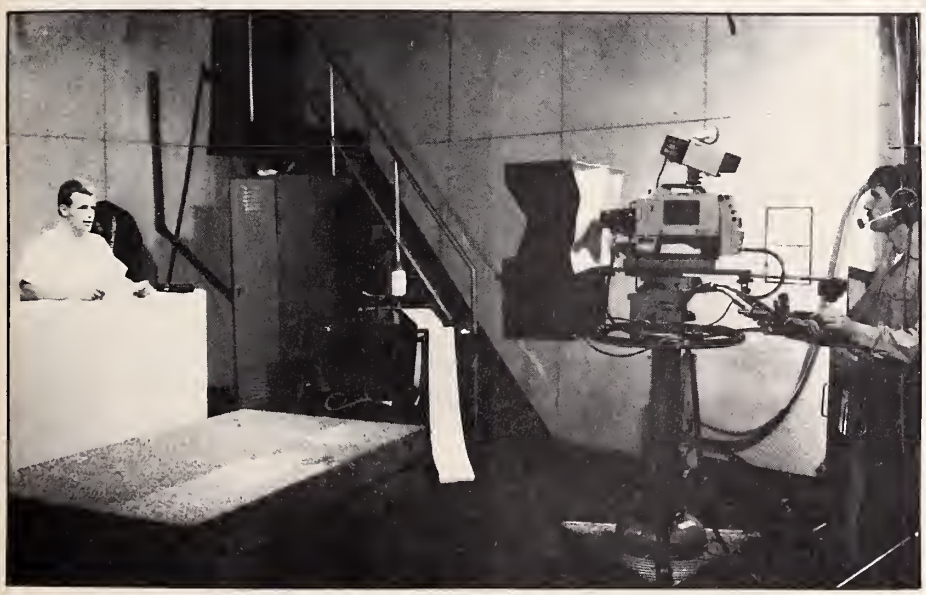
Other television personnel operate the boards and keep the station's logs. "The board-watchers handle the switcher, audio board, film and slide chains and the video tape machines," Smith said. "Basically, they operate all the equipment that puts the final product on the air. They ensure the correct programs and public service announcements run at the right time. Although working on the board doesn't sound as exciting as shooting or reporting the news, it's an extremely important job. Without boardwatchers, a station couldn't operate."

The radio side of the station operates much the same way. Military broadcasters air both pre-recorded and local programming "AFRTS radio stations aren't like the ones in the states," Smith said. "Our radio programming is not just one type of music. We play rock, jazz, country western and soul. We try to air something for everyone. Some outlets even produce local talk shows," he added.

Army, Navy, Air Force and Marine Corps broadcasters all receive their training at the Defense Information School (DINFOS) at Fort Benjamin Harrison in Indianapolis, Ind. Upon completion of the 10-week course, the newly designated broadcasters receive orders to one of the more than 800 AFRTS outlets around the world.

"When a DINFOS graduate hits the field, he's ready to go," exclaimed Staff Sgt. Donald Sweet, an army broadcaster at Fort Gordon, Ga. "Civilian networks don't train people, they hire experienced personnel. DINFOS graduates are semi-experienced personnel. The training they receive emphasizes operational skills, not theory," he explained. "They train mostly in the studio, not the classroom. When they report to their first AFRTS, all they have to do is refine their skills, not learn them.

"Being a military broadcaster is a great occupation," Sweet concluded. "We entertain people with music and sports. We inform people with up-to-date news. We provide information and entertainment which will hopefully affect their lives in a positive way."



A cameraman monitors a shot of a broadcaster during a live newscast in an AFRTS studio. (U.S. Navy photo)

Flip the switch

"THE POWER'S ON"

story and photos by Karen Murdock

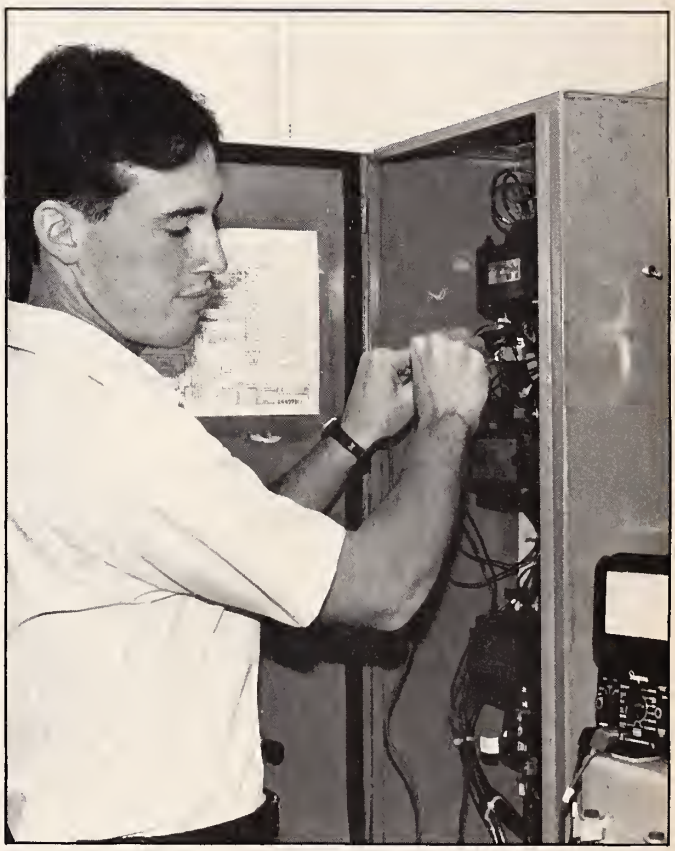
People take electricity for granted. They walk into a room, flip on the light switch, turn on the television set and grab a cola out of the refrigerator without giving a second thought to the source that powers these conveniences. The only time they think about electricity is when the power is out or the monthly utility bill arrives.

However, for Coast Guard electrician's mates (EM), it's a different story. "Whether an electrician's mate is assigned to a shore facility or aboard a ship, they deal with electricity daily," said Chief Petty Officer Carl S. Cantrell, electrical supervisor at the Coast Guard Ship Support Facility in Portsmouth, Va. "They maintain and repair motors, generators and other electricial equipment.

"Aboard ship, electrician's mates stand watch and make sure generators stay on line to supply power to the ship," he continued. "They monitor the electrical systems and correct malfunctions in addition to troubleshooting and rewiring systems and changing light bulbs. Basically, they maintain every facet of a ship's electrical systems.

"At shore installations, electrician's mates perform industrial and household wiring," Cantrell added.

"Initially, new electrician's mates work in



Seaman Peter Dort, a student at the Coast Guard's Electrician's Mates School, attempts to locate "bugs" in a three-phase, two-speed, forward/reverse motor controller. Instructors at the school program malfunctions in the students' equipment to test their troubleshooting abilities.

marine electricity," said Master Chief Dan Loudermilk, chief of the Electrician's Mate School at the Coast Guard Reserve Support Center in Yorktown, Va. "The difference between marine and shore type electrical work is the ground.

"On shore, electrician's mates ground equipment with a neutral wire. Aboard a ship, the metal hull acts as the ground," he explained. "On ships or shore, grounds are important as they conduct electricity and are an integral part of any electrical circuit."

The center's 17-week Electrician's Mate school teaches the basics. "The instruction students receive equates with the instruction received by civilian apprentice electricians," Loudermilk said. "After completing the course, electrician's mates gain journeyman experience while working under the supervision of senior Coast Guard electricians.

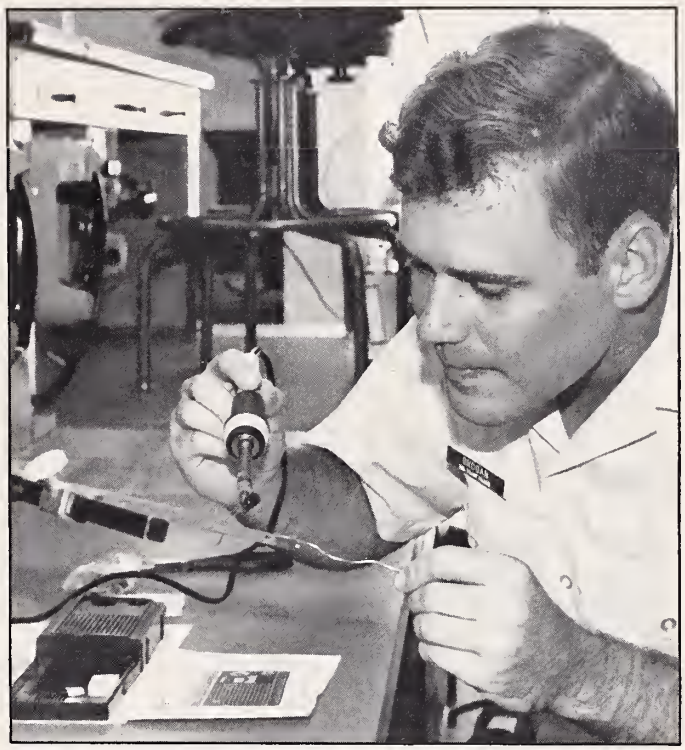
"The instructors begin with basic electrical systems and work through solid state equipment," he explained. "Classes cover resistors, capacitors, series and parallel circuits and the methods of computing different values for voltage, current, resistance and power. As the course progresses, the students study the principles of electrical motors and generators. The school furnishes kits to build every type of motor or generator an EM might encounter. These kits provide hands-on experience. When the student completes the kit, the equipment must be operational.

"These instruction kits are particularly useful as all motors, generators and controllers (a mechanism which regulates electricity) are similar, whether marine or shore installed," Loudermilk added.

During the school's controller phase, students learn direct and alternating currents. They troubleshoot a three-phase reversing two-speed controller. Instructors then plant "bugs" in electrical systems for students to locate and correct.

Students also study casualty power. Instructors explain how to bypass a ship's electrical system while still keeping the craft operating. In addition, instructors introduce students to generator and propulsion boards and power distribution. The course's final phase includes solid state components and communication equipment.

The opportunity for advanced training is available to electrician's mates. "In addition to the basic course, electrician's mates can attend the 14-week advanced course which provides in-depth instruction in solid state and state of the art components," Loudermilk explained. "However, EMs must be graduates of the basic course, have two years of field experience and be a third class petty officer before applying," he added.



Fireman Daniel P. Grogan, an Electrician's Mates School student, solders state devices in a printed circuit board.

To enter the EM field, applicants must possess above average mechanical scores on the Armed Forces Vocational Aptitude Battery and have normal color perception. "Perceiving the correct colors is vital," Loudermilk explained, "because the Coast Guard wiring system is based on color codes. If an EM connects the wrong wires there's a chance that someone could be injured or killed from electrical shock."

Coast Guard electrician's mates keep ships operating. They maintain and repair the systems that supply power throughout the ships to run everything from navigational equipment and air conditioning to the refrigeration and lighting systems.

"The job is important," Loudermilk concluded. "Without electrician's mates, the Coast Guard might as well revert to wooden sailing ships, because a ship without EMs, is a ship without power."

Coast Guard electrician's mates keep ships operating by supplying the power to run everything from navigation equipment and air conditioning to the refrigeration and lighting systems.

Historic Annapolis

story and photos by Linda Mitchell

Annapolis, richly steeped in American and naval history, is one of the original settlements to flourish in colonial Maryland. It has been Maryland's capital since 1694. Although the first capital was established by Cecil Calvert, Lord Baltimore, in 1634 at St. Mary's City on land given his father by the British government, the capital was later moved to Annapolis for strategic naval and commercial reasons.

As a commerical port, Annapolis harbored ships traveling up the Chesapeake Bay to Baltimore carrying spices, tea, tobacco, and other goods and passengers to and from Europe and the West Indies.

As a capital, Annapolis served both Maryland and the fledgling United States. The Maryland state house, which rests on a hilltop overlooking Annapolis harbor, was built between 1772 and 1777. It is the only state house in continuous legislative use since our nation was founded. In one of its rooms in 1783, George Washington relinquished command of the Continental Army. One year later, the Treaty of Paris, ending the Revolutionary War, was ratified in this building. Also, the call for the Constitutional Convention was issued from the state house in 1786. Today, guides in colonial costume escort visitors daily through these historical rooms and legislative chambers, while expounding on its colorful, historical facts and features.

Also open daily for prayer and visiting are St. Anne's Episcopal Church, founded on Church Circle in 1692; Government House, the governor's mansion; and other historic homes, taverns, and buildings which occupy the hilltop.

A part of Maryland's naval history rests on the state house's front lawn. The bell from the battleship USS Maryland memorializes the ship and those who served aboard her during famous World War II battles such as Okinawa, Tarawa, and Pearl Harbor.

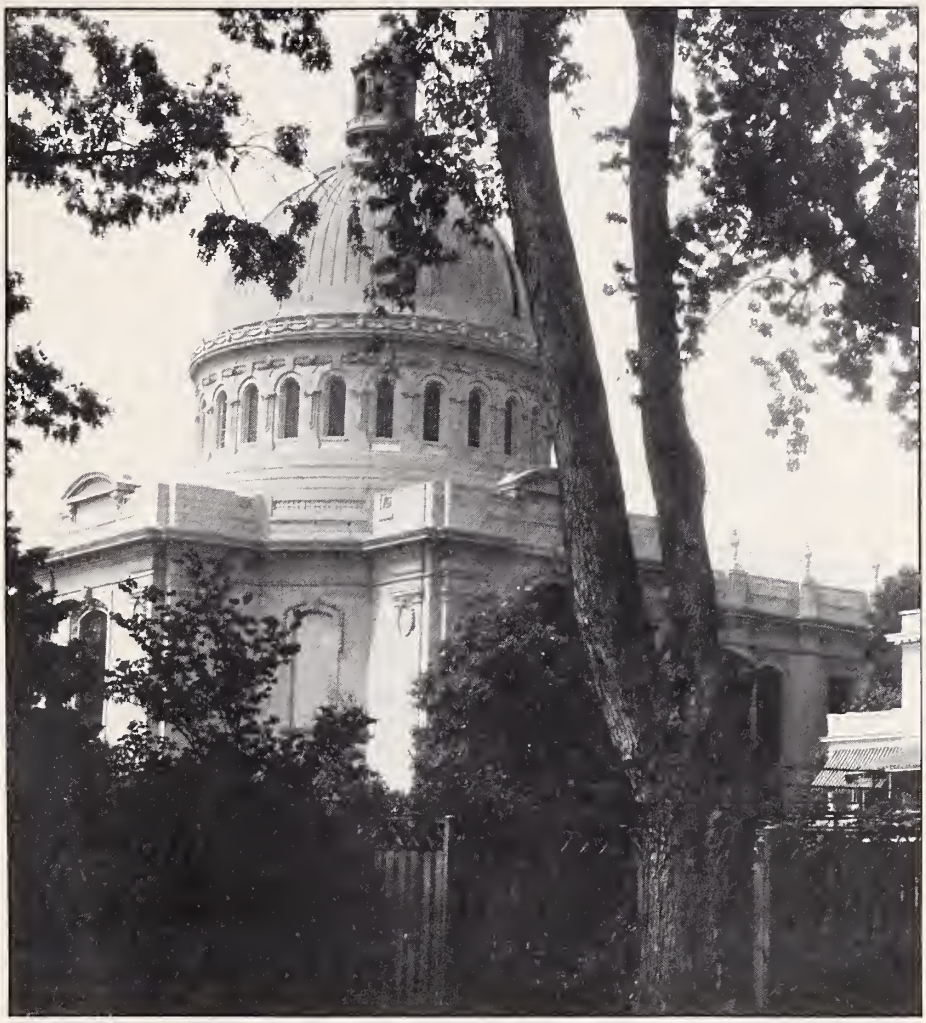
The historic hilltop buildings stand vigil over a town and harbor, parts of which have changed in many ways, while the town simultaneously remains timeless. Autos and trucks travel cobblestone streets once trod by Thomas Jefferson and other famous figures. Visitors tour the town in motorized cars which are replicas of the late 19th century horse-drawn trolleys.

Other modes of transportation await civilian sailors in the harbor area. The harbor and marina teem with commercial and private fishing and pleasure craft. Colorful, leisurely-moving sailing craft contrast with sleek, speedy motorboats.

Modern seafarers can also view the Bay from ferryboats which operate several times daily between Annapolis and Baltimore, with regular stops at historic Fort McHenry.

While deciding how to see the Bay and town, visitors can rest at either modern hotels or historic inns. Restaurants and taverns offering a variety of cuisines and entertainment line the narrow, rambling streets and wharfside. Shoppers can also browse through a wide

Colonial remembrance is evident along the city's residential streets.



The state house provides a wealth of history and knowledge for all who enter.

variety of souvenir, antique and novelty shops.

For those with strong naval ties, a vast historic naval attraction is located a few blocks from the town's center. Annapolis's naval history became firmly established with the 1845 founding of the Naval School, now the U.S. Naval Academy. The school was built on 10 acres of land which were once Fort Severn. The Naval School's purpose was to train future naval officers in necessary skills before sending them to sea.

The school's first two classes included only 60 students. Four officers and three civilian instructors taught gunnery, naval tactics, engineering, chemistry, mathematics, astronomy, French, and English. The course of study was five years: one at Annapolis, three at sea, and the fifth back at the school.

In 1851, the school was reorganized as the U.S. Naval Academy. The instruction course was reduced to four academic years with summer training cruises providing seagoing experience, a curriculum still followed today.

The Academy and its population have expanded over its 141-year history. Today, 4,500 Navy and Marine Corps men and women comprise the four-year Brigade of Midshipmen. The Academy now occupies 329 acres. About 560 faculty members, more than half of whom are civilians, challenge students' interests in 18 major disciplines, from English to computer science, oceanography, law, and nuclear propulsion.

Daily guided walking tours of the Academy grounds are available to potential students and the general public, or visitors may stroll the grounds on their own if they wish.

Sports play an important role at the Academy. Midshipmen participate in everything from basketball and baseball to track and wrestling. Aside from the all-important football, the Academy offers English rugby, sailing, gymnastics, windsurfing, swimming and diving, ice hockey, and many more intramural and varsity events.

Where there are sports, particularly varsity football, the Academy's mascot appears. A long-haired goat has filled this role since 1890. Legend has it that the Academy acquired the unusual mascot at West Point. During their march from the ferry station at Highland Falls, N.Y., up the steep hill to the Point for their first Army-Navy football game, the Naval Cadets saw a goat outside the noncommissioned officers' quarters. They promptly commandeered "Billy" for their unofficial game mascot. Navy won the game, and "Billy" became official.

Annapolis has had a nautical link since her founding in the early 1600s, and those bonds have strengthened since the establishment of the U.S. Naval Academy. Rarely is one mentioned without adding the other. On weekend liberties, when not studying or participating in sporting events, cadets can be seen strolling along Annapolis's tree-lined streets, relaxing on benches along the waterfront and absorbing the history of Annapolis, their adopted home.

'That others may live'

story and photos by
Linda Mitchell

It's midday as the pilot ejects from his crippled fighter over the jungle. Before "punching out," he radios his location to base. "Hopefully," he thinks, "our guys will find me before the enemy!"

Hours later, the pilot hears the sound of an approaching helicopter. Looking skyward from his partially concealed position, he sees a man in camouflaged fatigues rappelling from the aircraft's rear door. He identifies the helicopter as a U.S. Air Force UH-60A Black Hawk—his rescuers have arrived.

Air Force pararescuemen train long and hard to react in these situations, but the effort is amply rewarded. "There's no greater satisfaction than knowing I've saved someone's life," said Tech. Sgt. Ken Musnicki, a pararescue/recovery (PJ) technician in the 55th Aerospace Rescue and Recovery Service (ARRS), Eglin Air Force Base, Fla. "When a rescued pilot crawls into the helicopter, his look of relief makes the training and practice worthwhile."

Pararescue/recovery specialists must complete five schools before pinning on the coveted pararescue badge—nearly one year of grueling physical and mental trials.

The training begins at Lackland Air Force Base, Texas. "For nearly two months, an endurance selection team puts trainees through a rigorous screening process. The day starts at 6 a.m. with three hours of physical training in the morning followed by four hours of swimming," said Airman 1st Class Scott Pruitt, a pararescue/recovery specialist in the 55th ARRS. "During the last three weeks, team members instruct students in emergency diving procedures. Airmen become acquainted with diving equipment, anatomy and physiology in preparation for dive school."

Following the endurance selection, pararescue/recovery specialists undergo basic survival training at Fairchild Air Force Base, Wash. The 12-day course begins with classroom instruction in the psychological aspects of survival, rescue procedures and capabilities. The curriculum includes communications, navigation, medicine and hygiene, and parachuting procedures. The course ends with a strenuous two-day escape and evade exercise and classified interrogation resistance training as "prisoners of war."

After completing basic survival training, students report to the Army Special Forces Combat Dive School at Key West, Fla. "Instructors cram underwater ship bottom searching, navigation, night beach assaults and night diving procedures into three weeks," Pruitt said. "They also teach various techniques for plucking stranded divers and aircrews from the water."

PJ trainees report to the Army Airborne School at Fort Benning, Ga., after leaving Key West. At the school, students prepare for jumping from a 250-foot tower out of a mock aircraft, by practicing parachute landing falls (PLFs). "The tower jumps serve a three-fold purpose: students learn proper aircraft exiting procedures, they practice handling an open parachute, and they get used to performing PLFs from low altitudes," Musnicki said.

Tech. Sgt. Ken Musnicki assists Airman 1st Class Scott Pruitt with his scuba gear.

As a final test, students make one night and three morning jumps. They also parachute once in full combat gear.

The fifth school pararescue/recovery students attend is the Pararescue/Recovery Specialist School at Kirtland Air Force Base, N. M. "During the six month course, students practice parachuting in full diving gear. They also study and practice field medical treatment skills," said Sgt. Tim Metcalf, 55th ARRS. "Additionally, since the job is combat-oriented, PJs fire infantry weapons and practice tactics to disarm or evade the enemy. They also attend mountain climbing and ground navigation classes."

After receiving the coveted pararescue/recovery badge, PJs report to a rescue/recovery squadron. "Although the training is strictly combat-related, pararescue/recoverymen constantly use their skills during military-oriented peacetime search and rescue missions. They also perform medical evacuations, and assist civilian agencies during emergencies," Musnicki said. "The 55th ARRS has several UH-60A Black Hawks. It's also the only east coast rescue squadron with HC-130 Hercules aircraft. Because the Hercules has long-range capabilities, our operational area extends from Greenland to South America.

"Factors such as distance, maneuverability, weather conditions, and the amount of equipment required to perform a rescue determine the choice of aircraft," Musnicki said. "Rescue requests with basic information, such as location, time, and type of accident are received from the 23rd Air Force Rescue Control Center at Scott Air Force Base, Ill. PJ team leaders evaluate the situation and select which equipment and procedures to use in conducting the rescue.

"Pararescuemen are allowed up to 72-hours for pre-mission planning on routine missions," he continued. "But they often react on shorter notice.

Tech. Sgt. Ken Musnicki, left, and Sgt. Tim Metcalf complete an operations plan for a rescue mission.

Also, one- and two-day missions sometimes become two- or three-week layovers due to aircraft mechanical problems.

"Weighing the disadvantages against the advantages, I can't think of a more exciting career field to be in," Musnicki added. "The pararescue specialty is small, about 300 enlisted men and no officers. Promotion possibilities are excellent. Plus, aside from basic pay, PJs receive hazardous duty, dive and flight pay, which adds a few hundred dollars to our monthly pay checks."

"This is one of the most decorated fields in the Air Force," Metcalf said. "Pararescue/recovery technicians have earned Purple Hearts, Air Medals, and numerous other awards for heroism in combat."

Although the medals and ribbons they wear impress many, pararescue/recovery specialists themselves seem more impressed by the fact that they are capable of saving lives. Whether they're pulling downed aircrews out of enemy territory, or plucking civilians from a capsized boat in storm-tossed waters, pararescue/recovery specialists live up to their motto "That Others May Live."

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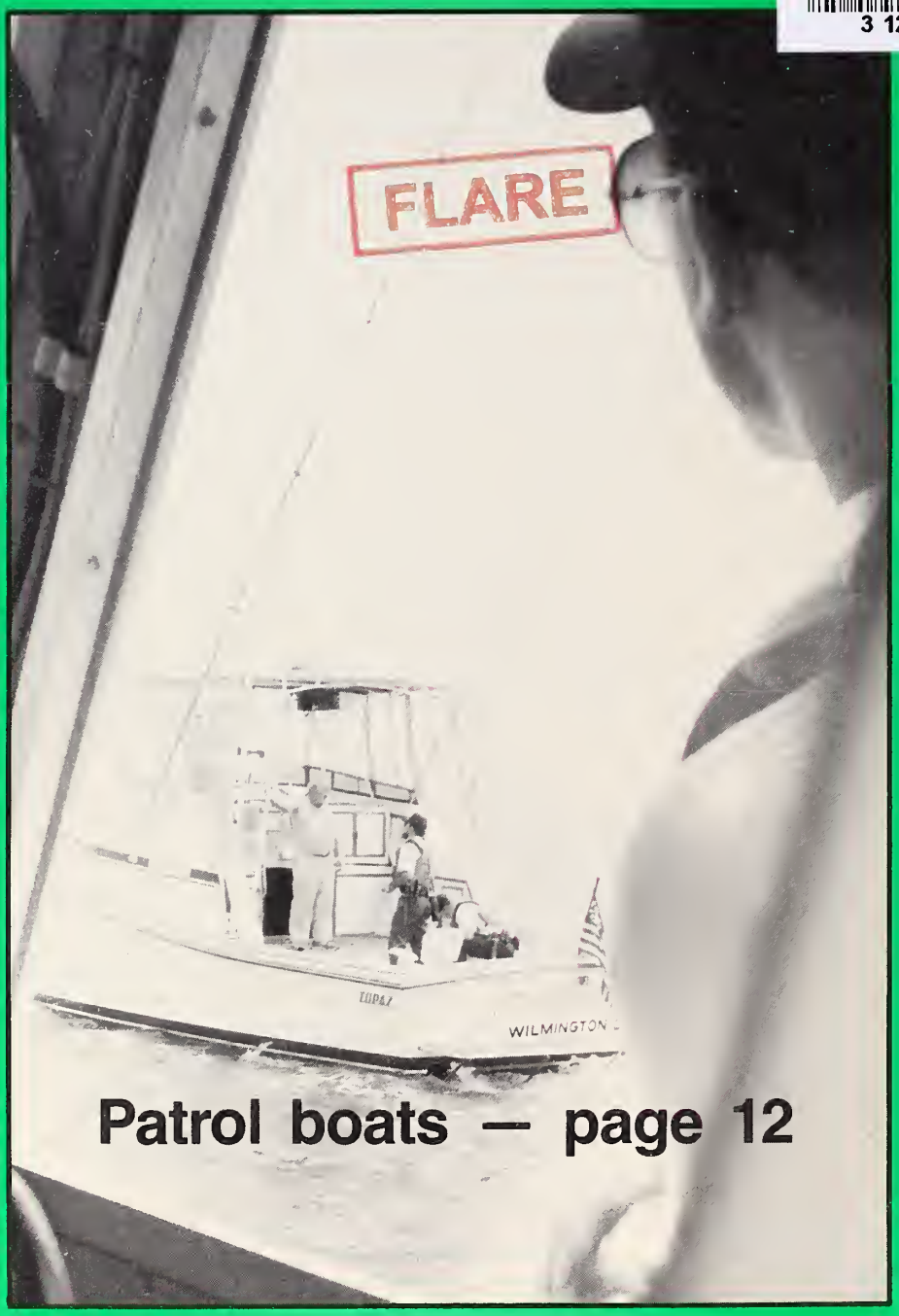

Patrol boats — page 12

Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.

George Smith Patton, 1947

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